THE PHYTOLOGIST.

No. XXXI. | DECEMBER, MDCCCXLIII. | PRICE 1s.

ART. CLXXX. — *Notes of a Botanical Excursion in France, in the Summer of* 1843. By JOSEPH WOODS, Esq., F.L.S.

MY friend Mr. Janson and myself crossed from Brighton to Dieppe on the 13th of May, 1843. On the following day we walked to Arques, about four miles distant, where there are the ruins of a noble old castle, and a fine fragment of a church. We walked along the valley and returned over the hills, without much botanical success. Mespilus germanica and Chærophyllum sativum occur near houses, and are perhaps neither of them truly wild. Arenaria tenuifolia, Erodium moschatum (in the village of Arques), Sambucus Ebulus and Fedia carinata, were the only plants that would be considered at all rare in England. The latter is much more common on this side of the water than olitoria, which perhaps is a little later in its time of flowering. The chalk peeps out here and there on the slopes of the hills, but is generally covered with a thick layer of clay and flint, or with some of the beds of the plastic clay.*

In the 'Flore de la Normandie' Pisum maritimum, Sedum dasyphyllum and Veronica verna, are said to grow at Dieppe; I saw none of them. Nothing is given at Arques, but the forest, abounding in beech trees, stretches a long way on the crest of the hills opposite to the castle, and ought to furnish something to the botanist. I would hardly recommend him, however, to spend his time at Dieppe, if he meditate a more extensive excursion.

---

* On returning to Dieppe at the end of August, I crossed the river at Dieppe, and walked by St. Martin to the forest of Arques, returning through Arques. This lengthens the walk, but gives a pleasing variety. We coast at first a salt marsh, but I saw there no rarity. Cirsium oleraceum grows at St. Martin. On the chalky banks at the edge of the forest, and also at Arques, I observed, very unexpectedly, Parnassia palustris. A Gentian, which I at first took for a large-flowered variety of Gentiana Amarella, but which I now believe is G. germanica, grows on the chalk, G. campestris on the plastic clay. Daucus hispidus of DeCandolle is common, but it is the same plant which we find on the chalky coasts of Kent and Sussex. The vegetation about Dieppe is very like that of the opposite coast, and has none of the plants which give so marked a difference to the Botany of the neighbourhood of Paris.

On the 15th we proceeded to Rouen by a diligence, which took us there in four hours and a half: some years ago this journey occupied seven hours. The rain almost confined us to the city for that and the two following days. Bromus tectorum and Linaria supina are common on the walls, and on the slopes of the hills there is abundance of Sesleria cærulea. It is curious to see a plant which is common on the limestone of the north of England, but which does not occur on our chalk hills, so plentiful in such a situation. Barkhausia taraxacifolia is plentiful on the hill meadows. Two forms of Polygala occur on these hills; one, which is the P. amara of the 'Flore de la Normandie,' P. amarella of Cosson et Germain, 'Plantes Critiques des Environs de Paris,' forms a rosette of larger leaves at the base of the flowering branch. This rosette, however, consists only in an approximation of a certain number of the leaves, and takes place in a greater or less degree, so that we sometimes find it difficult to decide whether it exists or not.

On the 18th Mr. Janson was obliged to leave me, and I walked, after his departure, to the woods and chalky banks beyond Canteleu. The forest of Roumare here stretches over the wide summit of a range of hills, generally on a soil of flint and clay; and offered to me Mespilus germanica, Monotropa Hypopitys, Colchicum officinale, Melittis Melissophyllum, Convallaria multiflora and Viola lactea. On the immediate crest of the hills, where the soil is almost wholly composed of flints, I observed Cornus mascula, Prunus Mahaleb, Aquilegia vulgaris, Helleborus fœtidus and Convallaria Polygonatum. Upon the rough chalky banks below the wood, grow Verbascum Blattaria, Teucrium Chamædrys and Veronica Teucrium, whose compact masses of bright blue flowers render it a much more conspicuous plant than V. Chamædrys. Here also we meet with Anemone Pulsatilla, Euphorbia Gerardiana, Globularia communis, Satyrium hircinum and Orchis fusca. I had expected to find several of the Orchises allied to this latter species in the neighbourhood of Rouen, and I was desirous of observing the variations in the form of the lip; in this walk, however, I met only with O. fusca, and that but in one spot. They appear to grow in patches of small extent, which are scattered here and there in or below the woods, and a botanist who does not hit exactly upon the place, may be within a hundred yards of a considerable number of them without being aware of it. I have given (Phytol 789) an outline of the three principal forms which occurred to me, in the lip of Orchis fusca; the narrowest I believe to be the O. militaris, and O. galeata of the Parisian botanists; Koch's O. militaris is probably the same as that of the 'Suppl. to Eng. Bot.' t. 2675. O. variegata has been said to have been found near Rouen, but this appears to be erroneous. Other plants which I observed in this walk were Lithospermum purpureo-cæruleum, in a lane below the church at Canteleu; Fedia carinata, Linaria supina, Bromus tectorum and Geranium rotundifolium, almost everywhere. Sedum album was not unfrequent on the walls, and Aristolochia Clematitis by the side of the lower road from Rouen to Canteleu. In all this walk the scenery is delightful, commanding the valley of the Seine, and a rich variety of wood and cultivation,—fertile plains, and steep and broken banks, and the Seine winding among them and giving life and spirit to the whole.

On the 19th I went in an omnibus to Darnethal, a manufacturing town about a league from Rouen. These omnibuses, or *gondoles* as they are here called, run every half hour. Two valleys unite at the lower part of the town; I took that to the right, and then ascended the hills on the left, where, on some rough uncultivated ground below the woods, I had on a former occasion, in company with my friend T. Corbyn Janson, found abundance of Orchis odoratissima. It is a late Orchis, closely resembling O. conopsea in its general appearance, and this time I failed to identify it. Hereabouts, too, I think we found Stachys alpina: Anemone Pulsatilla and Stachys recta are very abundant. Tilia parvifolia, Pyrus torminalis and Mespilus germanica are found in the woods, but the two latter seem rather shy of flowering. Luzula Forsteri grows here, almost to the exclusion of L. pilosa; Phyteuma spicatum and Convallaria majalis are in considerable abundance. Passing through these woods, and a cultivated tract through which runs the road to Gournay, I again entered the forests, and, in a hollow, found a large plot of intermixed Orchis fusca and O. militaris. When I speak of O. militaris, I mean a plant with pale purplish-grey acuminate sepals, like those of O. Simia, but with a broader lip, which is always rough with little tufts of short purple hairs. I have sketched (fig. 4, 5, 6, p. 789) some of the lips of the O. militaris here found, one of which is very remarkable, as the two upper lobes, the arms of the monkey, are entirely wanting. On the same bank grew Euphorbia dulcis and Cineraria integrifolia, which here, drawn up in the woods, has an appearance very different from that which it assumes upon the downs of Sussex.

On the recommendation of M. Pouchet, Professor of Botany, I went on Saturday to the hills rising from the Seine above Rouen. I did not go far enough to reach the Rocks of St. Adrien, which are chalk cliffs, and the station of some very rare plants. The steep slopes in this direction seem to be the driest of any about Rouen, and they are everywhere open and accessible. I here added to my list Iberis amara, Eryngium campestre, Caucalis daucoides, Ophrys apifera and aranifera, Orchis viridis and Epipactis grandiflora.

In a little wood on the right hand side of the ascent to Belbœuf, there was a considerable quantity of Orchis fusca. Digitalis lutea I had seen in the walk at Canteleu, but till I here saw some of the dead flower-stalks of last year, I did not comprehend what it was. Rosa sepium is common on the chalky banks: it is very glandular and fragrant, but I could not find any mixture of setæ among the prickles. Helianthemum marifolium makes some of the driest banks quite splendid with its brilliant flowers. This is at least the H. marifolium of the 'Flore de la Normandie,' but I give it on the authority of Mr. Gay that the French species described under that name is universally H. canum, H. marifolium being a Spanish plant, which is not found in France, nor perhaps in Italy. Calendula arvensis grows on some of the driest slopes — a hint perhaps that the vine would succeed there, as they are almost inseparable companions.

On the 22nd I went to Maromme, but I ought to have proceeded to Malonnaise, where there are some promising banks and woods, and to which place there is an omnibus every morning at 7. The clerks and employés at the manufactories about Rouen reverse the London practice, and after spending the day in the surrounding villages, return to the city to sleep. These omnibuses are numerous at Rouen, and besides a steam-packet for Havre, there is a spacious one for La Bouillé, a few leagues down the Seine, and a smaller one up the river to Paris. We may now add the rail-road, on which the botanist might go to Tourville, and return on foot by the banks and woods of St. Adrien as far as Mivoie, where at 5 o'clock he would find a gondole for Rouen.

There are two or three places down the Seine where there are turf-bogs, and a considerable one near Jumiege is said to be rich in plants; but a wet May is not tempting for bog Botany.

After my walk to Maromme I got on to the railroad at 3 o'clock, and arrived at Mantes at half-past 5.* The hills here are less high

---

* Vernon would be a better place to stop at, but I did not know this at the time. On my return I did stop there, but I was still lame from the effects of a fall in the forest of Fontainebleau, and could not walk far. However, I managed to ascend the hill of St. Catherine, on the north side of the Seine, where I observed Teucrium montanum, Ononis Columnæ and Astragalus monspeliensis.

and less bold than at Rouen, and the little patches of varied cultivation on their slopes look like strips of carpet. The hills to the north of the river are said to yield the best Botany; I unfortunately took a different direction. I noticed Melampyrum arvense and cristatum, both now in flower; Ajuga Chamæpitys and genevensis, Astragalus glycyphyllos, Hypericum montanum, Alyssum calycinum, Camelina sativa and Quercus pubescens (the segments of the leaves are narrower and deeper than in Q. sessiliflora). Verbascum pulverulentum and Salvia pratensis become now exceedingly common. Muscari comosum is also abundant, but M. racemosum seems to be already over. Fumaria Vaillantii, Iberis amara, Herniaria glabra, Thlaspi perfoliatum, Triticum Nardus, Poa bulbosa, Potentilla verna, Orchis fusca, Ophrys apifera, and Prunus Mahaleb also occur. In the Bois de la Butte verde, besides many plants usually found in a sandy soil, I noticed Tillæa muscosa; and in a clayey bottom, hardly more than a league from Mantes, Orchis militaris (fig. 7, 8), and O. Simia (fig. 9). Fig. 7 seems to approach the nearest to the figure in 'English Botany,' (t. 2675); O. tephrosanthos of that work (t. 1873, the O. macra of Lindley), I should say is most like fig. 11 hereafter to be noticed, but

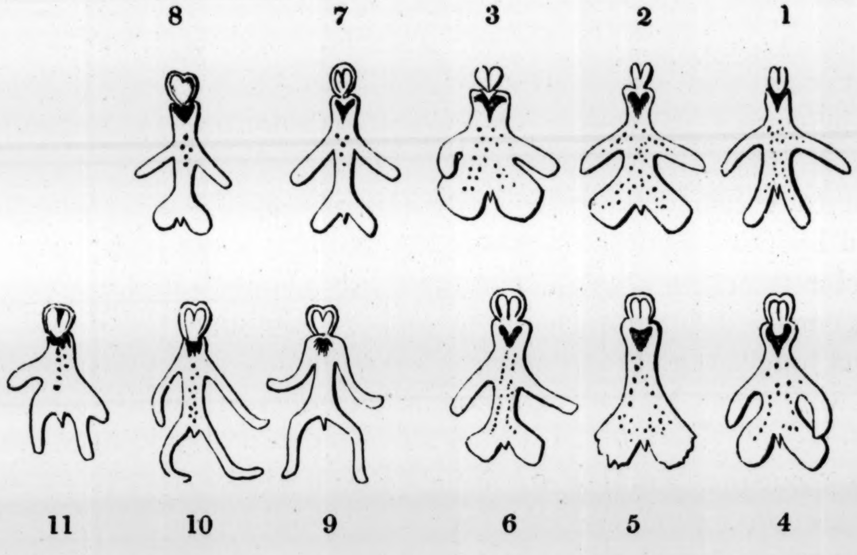

Fig. 1, 2, 3. Orchis fusca. Fig. 1 is probably the O. militaris and O. galeata of the Parisian botanists.
Fig. 4—8. Different forms of Orchis militaris. In fig. 5 the upper lobes of the lip are absent.
Fig. 9, 10. Orchis Simia. Fig. 11. A supposed variety of O. Simia.

which I am disposed to consider a variety of O. Simia. I may here observe that Bicheno refers this figure to O. militaris, and not to his tephrosanthos. In the specimens of O. Simia the lip was in general quite smooth, but in some there were a few small tufts of red hairs at the base. I should characterise the three species thus: —

O. *fusca.* Sepals rather obtuse, connivent, united at the base. Lip pinnately 4-lobed, with an intermediate point, rough with tufts of red hairs; lower lobes broader and shorter than the upper. Bracts minute.

O. *militaris.* Sepals acuminate, connivent, united at the base. Lip pinnately 4-lobed, with an intermediate point, *rough with tufts of red hairs;* lower lobes broader and shorter than the upper. Bracts minute.

O. *Simia.* Sepals acuminate, connivent, united at the base. Lip pinnately 4-lobed, with an intermediate point, *generally quite smooth*; all the lobes linear and similar. Bracts minute.

Lindley, and after him Hooker and Babington, say that the English plant is not the O. tephrosanthos of Villars. Villars says of his plant that it is more like Ophrys anthropophora than like an Orchis, I suppose he means in this comparison to except the spur. I know of no plant to which such an observation would apply, nor can I understand his Orchis militaris, where the "thighs" are longer as well as broader than the arms. The three other species of this division of the genus —O. longibracteata, O. undulatifolia and O. variegata, have bracts longer than the germen.

I went from Mantes to Houdan, in hopes of getting a ramble in the forest of Rambouillet, which advances to within a league of that place; but the rain, if it did not absolutely hinder, very much limited my exertions. One does not like to wade mid-leg in the water merely to see whether a place looks promising, though one would not mind doing it for a rare plant in view: even the wet bushes appal us when in a state of uncertainty. My plants were Knappia minima, Agrostis setacea, Alopecurus bulbosus, Hypochœris glabra, Mentha rotundifolia, Hieracium Auricula, Tragopogon pratense, with the rays nearly twice as long as the calyx; Seseli montanum, Adonis æstivalis, Genista pilosa, Scorzonera humilis, Myosurus minimus, Veronica verna and Cirsium anglicum of DeCandolle; how far C. bulbosum and C. pratensis of the same author are distinct from this plant, may admit of question.

The accommodations at Houdan (les Trois Fils d'Amon) are not very good, but the greatest defect was the want of attention. I had on my arrival a long while to wait in the kitchen before I could even get an answer to a question, and still longer before I could get my luggage taken up stairs: and when I came away, the servant was, with great difficulty, induced to bring my trunk down stairs, but left it at bottom, with "Voila votre malle, Monsieur," and would not bring it any further.

I had been assured at Mantes that I should find at Houdan conveyances for Rambouillet and for Chartres: I found neither, and therefore took my place in the evening for Dreux. The best hotel — the *Paradis* — was full, and I took up my quarters at the Saumon, which is not bad. The next day, May 25, I walked to the forest of Dreux, which offers some fine chalky banks towards the Eure, but internally is an unproductive plateau. Here again I saw Orchis fusca, which is evidently the most common of the tribe; O. hircina was abundant. The other plants were: —

Anchusa italica
Pulmonaria angustifolia
Salvia Sclarea
Orobanche cruenta
Crepis biennis
Peucedanum Oreoselinum
P. parisiense
Isatis tinctoria
Sisymbrium Irio
Silene nutans
Holosteum umbellatum
Sambucus Ebulus
Gnaphalium arvense

Helianthemum pulverulentum was abundant and in great beauty: this seems to me hardly distinct from H. apenninum, nor do I know how to separate it from H. polifolium, at least my specimens of H. polifolium from Brean down seem in all respects the same plant. After my walk I went to look at the new chapel which the King is now building as a mausoleum for himself and his family. With some beautiful bits of Gothic and a splendid general effect, it is nevertheless the strangest thing which can be imagined, and much more whimsical than beautiful.

At 6 o'clock the next morning I set out for Chartres. Nothing can be more interesting than the magnificent cathedral of that city, or less so than the country about it, especially as I saw it under the influence of a continued mizzling rain. At half past 2 I started for Angerville, where I had to wait at the station nearly two hours for the arrival of the train from Paris, with rain so incessant, and a road so deep in clay that I did not venture into the village. The country all the way from Chartres to Orleans is as dull and monotonous as possible: we traverse for some distance the forest of Orleans.

On the 29th I walked to Ingré and the forest beyond it. The hill on which Ingré stands is sandy at the base and clayey at top; the stratum of clay contains, in other places, beds of a soft calcareous stone. Orchis hircina here grows upon the sand, being less particular, in a warmer climate, in its choice of soil than it is with us or in Normandy. Thlaspi perfoliatum, Holosteum umbellatum and Bromus tectorum are no longer confined to walls and dry banks, but descend into the cultivated land. The other plants were: —

Carum Bulbocastanum
Bupleurum rotundifolium
Neslia paniculata
Erysimum orientale
Fumaria parviflora
Campanula Speculum
Dianthus prolifer
Silene conica
Hypochæris maculata
Artemisia campestris
Ornithogalum umbellatum
Veronica triphyllos

On the 30th I called by appointment, at 7 o'clock, on M. Jullien, and we set off, accompanied by the premiér garçon of the botanic garden and a lad with him, to St. Cyr en Val. We did not reach the village till near 12, although only about six miles from Orleans; but my companions were not well acquainted with the grasses and Carices, and found fully as much to do as myself. Beyond St. Cyr is a little valley, if so slight a depression may deserve the name, at first presenting barren banks and pieces of woodland, and becoming afterwards boggy; and we passed over heaths and through woods on our return, the country being everywhere nearly flat. Our plants were:—

Madia sativa, the relic of cultivation
Chondrilla juncea
Hieracium Auricula
Lithospermum arvense, flo. roseo
Stachys germanica
Brassica Cheiranthus
Turritis glabra
Herniaria hirsuta
Scutellaria hastata
Anarrhinum bellidifolium
Linaria Pelisseriana
Pinguicula lusitanica
Veronica acinifolia
Scleranthus perennis
Lobelia urens
Astrocarpus sesamoides
Helianthemum umbellatum
Vicia lutea
Trifolium ochroleucum
Vicia lathyroides
Lupinus tenuifolius
Lathyrus angulatus
Aristolochia Clematitis
Orchis laxiflora
Carex ericetorum
C. Schreberi

Before returning to Orleans we visited the source of the Loiret; it is a nearly circular basin at the foot of a woody bank, in which the spring boils up with considerable force, and forms at once a river, which, after a quiet course of a few miles, joins the Loire. It is a charming spot, well shaded with fine trees, and breathing sweetness and repose. In this walk (which exceeded twenty miles) the want of ferns in situations apparently very favourable to them, was very striking. We saw only two or three of the most common species, and not many plants of those. This, I apprehend, is the most eastern habitat known for Pinguicula lusitanica.

The next day we had a ramble in the forest of Orleans, but besides that we had anticipated many of the plants, the ground in this direction is not so favourable for Botany. We examined a large shallow pond, where the gardener Aubin thought he had found Carex hordeistichos, the year before but we sought for it in vain. A curious variety of Cirsium anglicum, if it be not rather a species, grows here, the stem being much more leafy than in the usual state of the plant.

Cirsium anglicum is the Cnicus pratensis of our British botanists, the latter generic name having been taken from Linnæus, the former from Tournefort; and the name Cnicus being thus at liberty, De Candolle has appropriated it to the Centaurea benedicta, which was called Cnicus by Vaillant, and by Linnæus in the first edition of the 'Species Plantarum.' With regard to the trivial name the matter is more intricate. Linnæus has a Carduus dissectus growing in France and England, which is lost if it be not this plant. Hudson consequently called it at first C. dissectus, but afterwards adopted the name of C. pratensis. Cirsium anglicum is a name of Ray, adopted by Lamarck. I will not here attempt to trace the limits or the synonymy of this species, tuberosum, bulbosum and pratense of DeCandolle, observing, however, that if tuberosum and bulbosum be the same plant, the former name is to be preferred, as the root is strictly tuberous, and not bulbous. Smith says that the root is creeping in C. tuberosus, and not in pratensis. It is certainly creeping in the plant before us, but I suspect that it is so, more or less, in his C. pratensis. We noticed Euphorbia dulcis, which I had not seen since I left Rouen, and one or two specimens of E. Lathyris; also Erica scoparia, Melampyrum cristatum, Arnica montana, Inula salicina and Festuca heterophylla: I have not made up my mind as to whether this F. heterophylla be the same as our F. duriuscula. I have never seen it except in woods, and the slender culms, and numerous, very long, capillary root-leaves give it a very different appearance. F. duriuscula of the French botanists is a variety of F. ovina.

From Orleans I proceeded in a steam-boat down the Loire to Blois, and on Friday morning, in company with one of my companions in the packet, visited the Chateau de Chambord, a magnificent and very curious palace of Francis I. There are four large round towers at the angles of the principal building, which rather promise some fine apartments within, but they are cut up into little rooms. Heavy rains afterwards prevented all but a short walk to a place on the south side of the Loire, which sometimes receives its overflowings. Glaucium luteum has here established itself; and I noticed Medicago minima, Senecio viscosus, Scrophularia canina, Cynoglossum pictum and Triticum Poa.

On the 3rd of June I visited the forest of Blois, but with little success; it seems to be of a clayey soil, with some mixture of flint, occupying an extended and nearly level hill-top; yet some of the little streams appeared to be permanent, though greatly swelled by the heavy rains. The large variety of Monotropa grows here among the roots of the hornbeam. We also find Euphorbia stricta and esula, Linaria striata, Crepis pulchra and Lamium maculatum, between the forest and the river. The botanists of Orleans contend that the latter plant is a distinct species, and call it L. hybridum: it has larger flowers than the common form, and is altogether a handsomer plant, but I see no specific difference. Orchis laxiflora and hircina are not uncommon about Blois. Just by Blois, in ascending the Loire, is a steep bushy bank, which is rich in plants, and from the charming views over the valley, would afford a delightful lounge in fine weather. The plants I there observed were:—

Orobanche cærulea
O. epithymum
O. amethystea
Linum tenuifolium
Prunella laciniata
Stachys recta
Potentilla verna
Micropus erectus
Valeriana rubra
Centrophyllum lanatum
Medicago orbicularis
Bupleurum aristatum
Ornithogalum pyrenaicum
Muscari racemosum
Ophrys aranifera
Orchis hircina
Phleum Boehmeri
Ceterach officinarum

I was told at Orleans that I should find a rich harvest in the neighbourhood of Vendome;—that the ground was *très accidenté*, and abounded in favourable situations. To Vendome therefore I went, in one of the diligences which run every day between that town and Blois; and after breakfasting at the Hotel de St. Louis, which is an excellent one, set off to find the botanic garden. I was positively assured at the inn that there was neither garden nor Professor;—there are both. The garden, however, is only a little piece of ground at the back of the college, and the Professor—M. Julliard—was unfortunately at Blois. I did not regret this much at the time: the Professors at these smaller establishments in France, are often men who attend to little beyond the circuit of lectures they have to give, or at any rate who interest themselves but little in the Botany of the neighbourhood; but I afterwards learned that M. Julliard is a good and zealous botanist, and well acquainted with the plants of the country,—a kind of knowledge particularly valuable to a stranger. From the college I set out to find the gardener, who works at other places as well as at the botanic garden; and not finding him at home, left word for him to call on me, either at his dinner-hour (2 o'clock), or in the evening, and meanwhile I walked about the castle, where I observed Salvia Sclarea (not in flower), Medicago apiculata and Ophrys apifera, and afterwards to a piece of wood and barren ground, which I had noticed from the road, which yielded only Cirsium anglicum, Globularia vulgaris and Ornithogalum pyrenaicum. In the evening my man did not make his appearance; but as he had been recommended to me for his knowledge of localities, and was the only person to whom I could apply, I returned to seek him. I found him in bed, his wife said he was ill, but he only acknowledged to being tired. He was, however, quite willing to talk and to display his own knowledge, and began to catechise me about mine. He boasted of his acquaintance with the grasses and Cyperaceæ, and gave me to understand that he had no small knowledge of mosses. We made however our arrangements for the next day.

I hired a cabriolet for six francs, and we set off at about half past 7. There is a diligence for Montoire at half past 12, but I thought it would not do to lose so much time. We breakfasted at Montoire and looked over the old castle, and then rambled among hanging woods, steep banks and chalk-like rocks, as far as Lavardin, where there are the picturesque ruins of another old and extensive castle. I seldom have traversed a more promising tract, but the performance was by no means equal to the promise. Of the Orchideæ I observed Ophrys muscifera, apifera and aranifera, Orchis fusca pretty abundant, O. Simia was also plentiful near Lavardin, but it is to be observed that though the form was completely that of Simia, the labellum was invariably rough. There were also Phyteuma spicatum (blue flowered), Stachys alpina, Lithospermum purpureo-cæruleum, Orobus niger and Hieracium murorum.

Before leaving these banks a heavy rain came on, and we afterwards lost our way in the marshy meadows. Trifolium parisiense was here abundant, but nothing else which I have not already noticed. We then passed to Les Roches, where there are some broken chalky cliffs rising from the Loire, but the continued rain made the banks so slippery that we could hardly keep our feet. Campanula persicifolia and Isatis tinctoria were the rarest plants; Orchis hircina is very abundant. My guide knew generally that the banks between Montoire and Lavardin, and the rocks at Les Roches, were the places in which the plants were mostly to be sought, and this any botanist would see at once from the aspect of the country, but beyond this he was totally ignorant, and his boasted knowledge of plants gradually dwindled away into very insignificant limits.

On the 7th I walked towards Colommiers on the recommendation of my guide of the day before, as the best ground in the neighbourhood of Vendome; and the ground is good, consisting of slopes on the margin of a wood in a calcareous soil, but I did not add anything. I was told at Vendome that a M. Monin, a physician at Blois, was a very good botanist; to Blois therefore I returned, and soon made acquaintance with him. We went together the next day to the wood of Russy, chiefly to look after Isopyrum thalictroides. A steep bank of small elevation descends from the wood towards the meadows, which, like most of those occupying the valleys in France, are quite flat and somewhat marshy. In moist places at the foot of this slope was the station of the Isopyrum, but a new road has been made (not yet finished) along this very bank, and has cut away one half of it, and covered up the other with the rubbish, and the Isopyrum was not to be found. Erica scoparia, Ranunculus nemorum, Scorzonera humilis and Centaurea Jacea were the fruits of our walk, and I found a curious irregular specimen of Orchis militaris (or of Simia), with the limbs variously united to the body, (fig. 11, p. 789).

On the 9th I set out alone, the rain having delayed M. Monin, and went to a windmill which he had pointed out to me near St. Gervais. I botanized there in spite of the frequent and heavy showers, and noticed Globularia vulgaris, Cynanchum vincetoxicum, Geranium lucidum, Helianthemum apenninum ? and H. pulverulentum. H. Fumana is said also to grow there, but I did not observe it. There is a little wood close by, which seems rich in the usual calcareous plants of the country.

On the 10th I engaged a place in the voiture which goes from Blois to Romorantin, and was to have met M. Monin at a place called Les Granges, but my driver knew nothing of Les Granges, though he had professed to be acquainted with it, and carried me beyond it, so that we missed each other. The country of this day's excursion is called Sologne, and is a curious feature in the surface of France. The ground seems to descend gradually all the way from Normandy to a considerable distance south of the Loire, so that the hills, which about Rouen are 500 or 600 feet high, become less and less, till a height of 30 or 40 feet forms a marked eminence. The whole surface in Sologne is sandy and gently undulating, and, from its low position, is generally moist in the bottoms. Sedum villosum grows among the corn, and Illecebrum verticillatum on the road-sides. It seems to be well worth visiting from its peculiarity, and from its botanical productions, as it offers many rare plants, and I should have done well to have gone to Romorantin, and to have spent two or three days there and at Salbris, in the very depths of Sologne. The maps mark a multitude of triangular pools, and in the winter, and even at the time I was there, these exist. A dam is made across one of these hardly-marked valleys, and the water collects there, but in summer you may traverse most of them in any direction without getting wet. Asphodelus albus is said to be abundant in some parts, and this is about its most northern station; it is also probably about the most southern station, independent of mountains, for Myrica Gale. The plants that I observed were not numerous; besides the two already mentioned, Sedum and Illecebrum, they were: —

Astrocarpon sesamoides
Tillæa muscosa
Trifolium subterraneum
Scirpus maritimus
Arenaria segetalis
Astrolobium ebracteatum
Avena tenuis?
Spergula subulata
Lathyrus angulatus
Vicia lutea
Juncus capitatus

After these excursions I returned to Orleans, whence I made an unproductive trip to the Pont de Segris. Our principal object was to get an Anchusa, which M. Jullien supposed to be the altissima of Desfontaines: they had a plant of it in the garden. I suspect it will prove a variety of A. italica, but we found only the common form of A. italica in this station. The almost continued rain was, however, very discouraging. From Orleans I proceeded to Paris.

To keep the form of a journal in the various walks and little trips that I made during a residence of six weeks in Paris and in its neighbourhood, would occasion a number of useless repetitions: I shall therefore begin by giving a list of those plants which are marked with a C (*commun*) variously modified in the Catalogue published by Cosson, Germain and Weddel, but which are rare or unknown in England, and therefore interesting to an English botanist; and thence proceed to state, as far as my experience goes, what more may be expected in various excursions in the neighbourhood.

Anemone Pulsatilla. Sandy hills.
Adonis æstivalis. Sandy fields.
Myosurus minimus. Ditto
Helleborus fœtidus. Dry banks.
Nigella arvensis. Sandy fields.
Delphinium Consolida. Ditto.
Fumaria Vaillantii and parviflora. Ditto.
Nasturtium officinale, var. β. *siifolium*. Ditches?
——— sylvestre. Sides of the river.
Barbarea arcuata.
Turritis glabra. Sandy woods.
Sisymbrium Irio. Walls and banks.
Erysimum cheiranthoides.
Brassica Cheiranthus. Sandy woods.
Diplotaxis viminea. Fields.
Alyssum calycinum. Dry fields & banks
Thlaspi perfoliatum. Dry fields.
Iberis amara.
Lepidium graminifolium.
Isatis tinctoria. Sandy woods.
Helianthemum guttatum. Sand.
Parnassia palustris. Springy ground.
Polygala depressa. Ditto.

Gypsophila muralis. Sandy fields.
Dianthus prolifer. Everywhere.
——— carthusianorum. Dry banks.
Silene nutans. Woods.
—— Otites. Sandy fields.
—— conica. Everywhere.
Arenaria tenuifolia, *β. viscidula.* Fields.
Holosteum umbellatum. Walls &c.
Linum tenuifolium. Dry slopes.
Malva Alcea.
Hypericum dubium.
Oxalis stricta. Moist cultivation.
Genista sagittalis.
Medicago sativa.
——— falcata.
——— minima. Sandy slopes.
——— apiculata. Fields.
Melilotus arvensis. Fields and banks.
Trifolium parisiense. Moist meadows.
Tetragonolobus siliquosus. Moist places.
Astragalus glycyphyllos. Woods.
Coronilla varia. Ditto.
Vicia gracilis, tenuifolia and lutea. Fields.
—— lathyroides. Dry slopes.
Lathyrus Aphaca and tuberosus. In fields.
Cerasus Mahaleb.
Fragaria elatior. Woods.
Potentilla verna. Dry ground.
Rosa sepium. Ditto.
Sorbus domestica.
Œnothera biennis. Sandy ground.
Lythrum hyssopifolium.
Portulaca oleracea.
Herniaria glabra and hirsuta.
Crassula rubens. Dry banks.
Sedum cepæa. Ditto.
—— album. Banks and walls.
Eryngium campestre.
Bupleurum falcatum.
Œnanthe Lachenalii and peucedanifolia.
Seseli montanum.
Selinum caruifolium. Boggy woods.
Peucedanum parisiense & Oreoselinum. Woods.
Caucalis daucoides. Fields.
Lonicera Xylosteum.

Erigeron canadense. Sandy ground.
Inula britannica. River banks.
—— salicina. Moist woods.
Filago gallica and arvensis. Fields.
Gnaphalium luteo-album.
Artemisia campestris. Sandy ground.
Anthemis arvensis.
Senecio paludosus. Seine and Marne.
Calendula arvensis. Vineyards &c.
Cirsium oleraceum. Moist shade.
Centaurea Jacea. Meadows.
——— lanata. Dry slopes and banks.
Scorzonera humilis. Moist woods.
Podospermum laciniatum. Banks.
Chondrilla juncea. Ditto.
Lactuca Scariola and Saligna. Ditto.
Barkhausia fœtida and taraxacifolia.
Crepis biennis and tectorum.
Hieracium Auricula.
Prismatocarpus Speculum. Fields.
Campanula persicifolia. Woods.
——— Rapunculus.
Cynanchum vincetoxicum.
Villarsia nymphæoides. Seine, Marne.
Gentiana Pneumonanthe.
Heliotropium europæum. Dry places.
Echinospermum Lappula. Walls.
Pulmonaria angustifolia. Woods.
Myosotis stricta. Woods.
Solanum nigrum, var. *ochroleucum.*
Physalis Alkekengi.
Lycium barbarum.
Verbascum Schraderi. Banks.
——— pulverulentum.
——— Blattaria. Woods.
Linaria stricta and supina.
Veronica Teucrium. Sandy woods.
——— spicata.
——— triphyllos.
Melampyrum cristatum. Sandy woods.
——— arvense. Fields.
Rhinanthus glaber?
Orobanche Epithymum, Galii, Eryngii, and ramosa. Occasionally.
Mentha rotundifolia. Moist banks.
——— sativa.
Salvia pratensis.
Melittis Melissophyllum. Woods.

Fedia carinata and auricula. Fields.
Stachys germanica. Borders.
——— annua. Fields.
——— recta.
Leonurus Cardiaca.
Ajuga genevensis. Sandy ground
Teucrium Botrys. Fields.
——— Chamædrys. Slopes & banks.
Centunculus minimus. Moist sandy ground.
Statice Plantaginea. Sand.
Plantago arenaria. Ditto.
Amaranthus sylvestris, Blitum & retroflexus. Waste ground.
Chenopodium glaucum. Ditto.
——— hybridum.
Atriplex oppositifolia and hortensis, β. *microsperma.*
Rumex maritimus
Polygonum mite and dumetorum.
Aristolochia Clematitis.
Euphorbia stricta. Fields.
——— dulcis. Woods.
——— Gerardiana. Dry woods.
——— Cyparissias. Banks &c.
Salix hippophaëfolia.
Alisma Damasonium.
Naias major.
Orchis fusca, *Jacq.* Woods.
—— laxiflora. Moist meadows.
Orchis chlorantha.
Lamium incisum and maculatum.
Ophrys aranifera, 6; arachnites, 7, 8.
Asparagus officinalis. Sandy woods.
Convallaria Polygonatum and multiflora. Woods, 5.
Ornithogalum pyrenaicum. Wdy. slopes.
——— umbellatum. Fields.
Scilla autumnalis. Sandy woods.
Allium sphærocephalum.
——— oleraceum. Cultivated.
Muscari comosum and racemosum.
Juncus Tenageia. Moist sandy places.
Cyperus fuscus.
Heleocharis uniglumis and acicularis. Marshy edges of ponds.
Carex tomentosa.
Cynodon Dactylon.
Digitaria sanguinalis.
Panicum Crus-galli.
Setaria verticillata and viridis.
Phleum Boehmeri.
Knappia minima.
Aira uliginosa, only two places quoted, perhaps the C is an error.
—— canescens. Sandy banks.
Poa bulbosa.
Bromus arvensis. Banks.
——— tectorum. Walls and banks.
Chara flexilis and translucens.

My first excursion was to Charenton, on the 17th of June, and I visited that place again on the 23rd of July, in company with M. de Jussieu and his party, but in the latter case it was very wet weather. Taking the voiture for Charenton, the botanist will get out at the bridge, and crossing it, will proceed to that over the Seine, which he will not cross. A little above this, on the right bank of the Seine, I gathered Sisymbrium supinum, a plant which was much more plentiful formerly than it is at present, the efforts of Parisian botanists having nearly succeeded in destroying it. He will then return and cross the Marne in a boat, just above the bridge, to one of the islands, and ascend the river: here, however, I obtained nothing but Inula britannica. On leaving the shore, the bank on the left of the road furnished Anchusa italica and Orobanche amethystea; but before this the greater part of the company were driven back by the rain. I proceeded in company with M. Germain and two others, to the plain of La Varenne, a sandy flat forming the extremity of the peninsula of St. Maur, partly woody or waste and partly cultivated. Here we got Polycnemum arvense and Trigonella monspeliaca. Thence proceeding to St. Maur and entering the Bois de Vincennes, we find on the road to the gate of Nogent, abundance of Carduus acanthoides of the French botanists, growing amongst a quantity of C. nutans and C. crispus (the acanthoides of Smith), between which it seems to be a hybrid. In the same neighbourhood, on the side of a road a little more to the right, grow Brassica Cheiranthus, Malva Alcea and Verbascum Blattaria, and, a little further on, Lathyrus tuberosus. This part of the wood is very beautiful, commanding views over the valley of the Marne; and it is the only part which is so. Thence, crossing the wood to the gate of Fontenay, we take the road nearest to the wall of the wood leading to Vincennes, where we shall meet with Scutellaria Columnæ in abundance, Silene catholica, Cucubalus baccifer and Tordylium maximum. The two first are supposed to have been sown in this locality at some unknown period; and there are two or three other plants which I did not see, believed to be in the same predicament. Here also I observed a plant of Ranunculus nemorum, but whether there is more of it I do not know, for having gathered the plant lately in a much better state at Blois, I did not pay much attention to it. This walk, if not very productive of rare plants which are genuine natives, has the advantage of exhibiting a large portion of those which are more common in the vicinity of Paris. The waterside about Charenton, the dry slopes beyond, the sandy plain of La Varennes, and the wood of Vincennes, furnishing all the usual varieties of soil and situation. The botanist will meet with Senecio paludosus, Delphinium Consolida, Nigella arvensis, Filago arvensis &c., and later in the year with Digitariæ, Setariæ &c.

It seems hardly necessary to say anything of my Paris life, yet a few words may not be useless to a brother botanist who visits that city for the first time. I took up my lodgings at the Hotel des Etrangers, Rue Vivienne, where I paid three francs a-day for my room. This I believe is the usual price for a single well-furnished room on the second story or on the entresol, at the respectable inns in Paris. You pay besides for a wax candle, one of which lasted me for a fortnight; and would have to pay for a fire if you wanted one, and you are charged ten sous a-day for the servants. There are no other extras to make up a bill connected with the chamber, and the chambers in Paris are always fitted up as sitting-rooms; the bed occupying one corner, or sometimes across. If you eat and drink in the hotel, you have a list of prices hung up in your room, so that you may know distinctly all your expenses. The servants usually expect, at least from Englishmen, a small additional present, but I found them well contented when I formed my calculation for this at five sous per day. There is a table d'hote at half past 5, at four francs; but being not overburthened with money, I did not frequent it, since I could get a dinner which pleased me as well or better for half that sum. I usually went for my breakfast to the Café de la Place des Victoires, where I had one large cup, or perhaps rather basin, of coffee and milk, with bread and butter: this cost me one franc, including two sous to the waiter. I prefer this coffee-house, because they give the coffee in a larger cup than usual, without making it overflow. Those who wish for a more solid breakfast, will find it at the restaurateur's, for twenty-five sous. My dinner cost me two francs, a price for which you get a very good one at a great many of the Paris restaurateurs. I tried several, but the one I preferred was Tavernier's, in the Palais Royal. You have soup, or rather broth, wine, three dishes and a dessert, for your money. I added four sous for the waiters, which I believe is the highest sum usually given. There is a restaurateur at the west side of the Palais Royal (Moureau's), where they give you four dishes for the same price, but I think the food is hardly so good as at Tavernier's. In all these you dine in a handsome saloon, with everything clean and in good order; you are invariably presented with a clean napkin, and all those little comforts in which the cheaper London eating-houses are so deficient. At Tavernier's they give you ice to cool your wine in hot weather. There are other places still cheaper, which at least make a respectable appearance. In the evening you may have tea at any of the coffee-houses; but my experience is not in its favour, and I sometimes had an ice, sometimes an orgeat, and sometimes contented myself with eau sucrée, which has the merit of being the most economical of the three. *Mais revenons à nos moutons.*

(To be continued).

ART. CLXXXI. — *Notes on the Hieracium nigrescens* (Willd) *of Babington's 'Manual,' and Mr. Gibson's Hieracium hypochœroides.* By HEWETT C. WATSON, Esq., F.L.S.

BOTH these Hieracia have been long known to English botanists, though never clearly understood. They occur in many localities, and specimens are doubtless preserved in many herbaria. It is not my wish here to interfere with the good observers who have taken them under examination for the determination of their right names and characters; but only to supply a few circumstances of their history, by which other botanists will be enabled to identify the specimens of them in collections.

In 1830, the "Hieracium nigrescens" was pointed out to me, then a very young botanist, by Professor Graham, on the Clova mountains, as a species which he believed to be distinct from H. alpinum, and I still possess specimens then collected. About the same date, perhaps in 1831, Sir W. J. Hooker gave me other specimens from the Cairngorum mountains, as a form of H. alpinum. In 1840, Mr. Gardiner, of Dundee, collected many good specimens of the plant for the Botanical Society of London, which were distributed to the members, labelled "Hieracium Halleri, *Vill.*" in the writing of Mr. Gardiner. In 1841, I brought living plants to my garden from Ben Aulder, in Inverness-shire; and still feeling at fault about the true place and name of the plant, I requested the opinion of Mr. Babington, who suggested that it was the H. nigrescens of Willdenow. Afterwards, on a living plant being shown to Mr. Borrer, that gentleman also designated it by the same name. On the continent it has been named as variously as in Britain. In my garden, the seeds falling about the plants (in 1842) produced young plants (in 1843) with leaves exactly like those on the original roots from Ben Aulder, but they have not yet flowered. The plant differs from H. alpinum, by its very broad leaves with a few strong teeth, and the black involucres. It is altogether a much more rigid plant. The stems are simple or branched, leafy or leafless.

Mr. Gibson's note on his "Hieracium hypochœroides" (Phytol. 741), is valuable in its tendency to explain a remarkable blunder, as it now appears to be, which has been copied into several botanical works; and in the diffusion of which I have been a party concerned, although not exactly in the manner stated by Mr. Gibson. The neighbourhood of Settle, in Yorkshire, has been long recorded as a habitat for Hypochœris maculata; though not recently proved. Mr. Gibson has now confirmed a suspicion which occurred to me from other evidence, that a common Hieracium had been misnamed Hypochœris maculata, by some of the older botanists, who looked only at its spotted leaves. Hence the introduction of false localities for the latter plant into our books.

In the original 'Botanist's Guide,' published in 1805, the localities stand thus: — "About Malham Cove, *Dr. Smith.* Near Ottermine

Cove, Settle, *Mr. Caley*." I presume "Dr. Smith" to intend the author of the 'British Flora;' yet, in 'English Flora,' Smith gives no habitat on his own authority. In the New Guide, published in 1835, the localities are reprinted from Turner and Dillwyn's work, with an addition of "Rocks in Gordale," copied from MSS. lent to me by the late Mr. Winch, and in which that locality is inserted on the authority of Mr. Windsor. Mr. Gibson is therefore not quite accurate in saying that I refer the "*plant*" to Hypochœris maculata: my only participation in the matter was that of printing the localities expressly on the authority of other persons.

It was not until the winter of 1840-41, that I saw a specimen under the name of Hypochœris maculata, from the neighbourhood of Settle. In that winter Mr. Tatham sent specimens to the Botanical Society of London, so labelled: — an error that any one might have fallen into under the circumstances. Before those specimens were distributed by the Botanical Society, the labels were altered to "Hieracium pulmonarium," and probably with a note of interrogation after the specific name; some doubt, I recollect, being felt, as to whether that name or H. maculatum (of Smith) should be given to the specimens in question.

Several years ago the late Mr. J. E. Bowman communicated specimens to my herbarium, under the name of "H. murorum,"—and that I still consider to be the proper *specific* name of this spotted Hieracium. Mr. Bowman had collected the specimens about Castle Dinas Bran, near Llangollin, in North Wales; and I also gathered the plant in the same locality, in 1832. Early in that year, I found a few very young plants of it, by the falls of the Ogwen, in Caernarvonshire; a locality for H. pictum, according to Mr. C. C. Babington, in the New Guide.

In 1836, Mr. James Ward gave me specimens collected near West Burton, in Bishopdale, Yorkshire; and which were labelled "Hieracium pulmonarium," and the locality published under that name, in the Supplement to the New Guide. There were likewise examples of the same plant among Mr. Gardiner's collections for the Botanical Society, in 1840; and these also were labelled "H. pulmonarium, *Sm.*" and distributed to various members of the Society. Lastly, I have collected this plant on the mountains of Forfar, Aberdeen, Inverness, and probably Perth shires. The Scottish specimens have usually two or three leaves on the stem, those of Wales and England one or none. The heads of flowers vary from one to three.

Not having seen Mr. Gibson's plant, I cannot confidently say that it is the same as the specimens from these different localities; though his own brief account of it, and the specimens sent to London by Mr. Tatham, as before mentioned, leave small room for doubt on this head. Mr. Gibson boldly assumes that his Hieracium is the very plant formerly mistaken for Hypochœris maculata; and there appears great probability of the truth of this assumption, although no direct proof is adduced.

Thus far I write in the country, with only my own herbarium to refer to. In passing through London tomorrow on a journey northward, I hope to look into Smith's herbarium for any additional information. The Nos. of 'The Phytologist' for October and November reached my hands together, on the 3rd; so that I have only just seen the note by Mr. S. Gibson. It now must excite suspicion against the correctness of other northern localities for Hypochœris maculata, in Lancashire, Westmoreland and Forfarshire.

Thames Ditton, November 6, 1843.

P.S.—Nov. 7. On reference to Smith's herbarium, I find two specimens labelled "Hieracium maculatum." One of these is a garden specimen, the roots of which were brought from Westmoreland, by Mr. Crowe; and it corresponds well with the various specimens mentioned above, as probably identical with Mr. S. Gibson's plant. The exceptions to this correspondence are seen in its more leafy stem, bearing numerous flowers — the usual effect of cultivation in gardens. The second specimen in the herbarium I should rather have joined with a Sicilian plant labelled "Hieracium pulmonarium:" it is located from Breiddin hill, and was collected by Mr. J. E. Bowman. Apparently, the "Hieracium glaucum," from the Clova mountains, is still the same plant as the "H. maculatum" from Westmoreland.

Of Hieracium nigrescens, there are garden specimens in Smith's herbarium, labelled "H. pulmonarium?" The roots were found on Ben y Gloe, by Mr. Mackay, and on the Clova mountains, by Mr. G. Don. A specimen labelled "H. pulmonarium" (without question), and mentioned to have been collected by Mr. Borrer, at the "River Nivis, near the bridge. Scotland," does not greatly differ from the other two; but has narrower leaves.

Smith's specimens of Hypochœris maculata are all from Suffolk. This circumstance tends to corroborate Mr. Gibson's conjecture, that a species of Hieracium was mistaken for the Hypochœris in Yorkshire. My own conjecture is, that the Hieracium in question is merely the wild form of the garden H. maculatum, figured in 'English Botany' under that name, but only a variety of H. murorum. H. pulmonarium appears a different species, and more like "H. nigrescens."

HEWETT C. WATSON.

ART. CLXXXII.—*Varieties.*

399. *Note on Inula Helenium and Ulex nanus.* Not knowing where to address Mr. Babington at this time, I send the enclosed to you, that it may meet his eye through the medium of 'The Phytologist,' if you deem it worthy a place in that journal. In conformity with the concluding paragraph of the Preface to Mr. Babington's 'Manual of British Botany,' I have to mention that during the late summer I found Inula Helenium growing abundantly in a moist meadow upon Newtown farm, in the neighbourhood of Lymington, Hants. Sir W. J. Hooker, in the last edition of his 'British Flora,' describes the flower as "large, terminal, solitary." In the Manual it is said, "heads few together or solitary." The plants found by me had generally four heads, and were consequently very unlike the figure in 'English Botany:' only one had so few as three. Whether any of the heads proved abortive I cannot say, the cattle having trodden them down before more than one blossom had opened. While upon Beaulieu heath in September, which is covered with furze and different species of heath, the former caught my attention from the circumstance that in very few spots only blossoms appeared; these I was disposed to refer to Ulex nanus, as they bore a striking resemblance to the figure of that species in 'English Botany.' On further observation, however, the flowers were found only upon the trailing shoots of such plants as had been cut down the preceding winter, rarely did a single shoot present a more erect position. The old entire bushes had not the least appearance of flowers upon them. Upon my return to Bath about the end of the month, I found the open part of the forest, on the Salisbury side of Lyndhurst, covered with furze everywhere in blossom, being so high and erect in many places as to represent Mr. Babington's var. *β. major* of Ulex nanus, the blossoms being twice as large as those upon Beaulieu heath. I had no opportunity of minutely examining the calyx, bracts or spines in either case. These facts, and Mr. Babington's not adopting specific characters from the teeth of the calyx, as Sir James Smith has done in 'English Botany,' and Sir W. J. Hooker in his 'British Flora,' but rather from the more or less shaggy surface of that organ, the ovate,

lax or very minute adpressed state of the bracts, or the relative situation of the flowers and spines, induce me to think that none of these appearances may be so constant as to afford specific characters. If so, why is not the var. β. *major* of Ulex nanus raised to the rank of a species? Its superior size, erect form, large flowers, and long and strong deflexed spines, seem, equally with U. nanus, to entitle it to this distinction. If they be distinct species however, why do the autumnal flowers of Beaulieu heath appear only upon the young shoots of those plants which have been cut down in the preceding autumn or winter? If only one species, why is the season of flowering different? Do the Beaulieu plants, which, in the adult state, seem to belong to U. europæus, flowering in the spring, throw out flowering shoots in the autumn, having the appearance of U. nanus, in consequence of their not having had branches capable of bearing blossoms in the spring? —*J. F. Davis, M.D.; Bath, October* 25, 1843.

400. *Note on Symphytum asperrimum.* In answer to Mr. Sidebotham (Phytol. 679), I may state my belief that Francis got the name of Symphytum asperrimum from my 'Flora Bathoniensis,' p. 32, where it is mentioned as a naturalized plant near Bath.— *C. C. Babington; St. John's College, Cambridge, October* 30, 1843.

401. *Urtica pilulifera in the Isle of Wight.* In your November No. (Phytol. 758), is a list by Mr. G. S. Gibson, of the rarer plants found by him near Ventnor, during a week's stay at that place last summer, amongst which is a notice of Urtica pilulifera, near Luccombe chine. I presume Mr. G.'s specimens were found in a field between the lodge and white gate near Chine-cottage, and the bank towards Rose-cliff and East end, on which Epilobium angustifolium grows, as otherwise I should esteem it a favour to be informed of a second locality; but since I have little doubt of my first supposition being correct, I would just beg to ask Mr. Gibson whether on examination he will not find his plant to be Urtica Dodartii? — in which case I can assure him he has neither made a discovery, nor secured an acquisition to his herbarium, the seeds of that species having been scattered by myself on the spot (till lately occupied by some ruinous cottages, now cleared away) two years ago, and I imagined the plants had become extinct. I gladly seize this opportunity, much as it tells against myself, of this unexpected exemplification of its injurious tendency, to condemn the practice of attempting to assist or direct Nature in the dissemination of plants, by artificially sowing their seeds in places where it is likely the plants produced may be taken for or confounded with the genuine natives of the soil; a practice which, if not

morally wrong, is, in a scientific point of view, highly reprehensible, as creating confusion in Vegetable Geography, by registering false stations, and cruelly misleading the working botanist by inducing a belief of his having found that which, unless spontaneously presenting itself to his observation, is, to say the least, utterly worthless as an object for examination and record. Having committed this misdemeanour, I feel bound to make the only reparation the act admits of, in a voluntary confession of guilt, and to assure Mr. Gibson that with this single exception, all the remaining, and to me most familiar localities, mentioned in his list, are, to the best of my belief, truly the appointment of Nature, — at all events, I can honestly declare they are none of my making.—*Wm. Arnold Bromfield; Ryde, Isle of Wight, November* 1, 1843.

402. *Note on the New Cuscuta.* Dr. Lindley presents his compliments to the Editor of 'The Phytologist,' and begs to acquaint him that the matter at p. 756, headed a "New Agricultural Pest," and quoted from the 'Ten Towns' Messenger,' was stolen from the columns of the 'Gardeners' Chronicle,' where it formed a leading article on the 9th of September. — *Gardener's Chronicle Office,* 3, *Charles St., Covent Garden, November* 3, 1843.

403. *A few words more on the Habitats of Equisetum Telmateia.* Probably I have one blunder to answer for here, in common with the other parties who have sent notes on the subject to the pages of 'The Phytologist,' — namely, that of overlooking the proper inference from certain facts which conflict, perhaps, only while not clearly understood. Mr. Newman appears to have given the true explanation, in saying that "closeness and compactness of soil" are unfavourable. The watery situations in which I have seen the plant growing, were most (if not all) of them loosely muddy. The avoided watery situations, as described, were apparently of an opposite character. Several of the dry situations in which it is stated to grow, are upon loose earth or rubbish-heaps. Some of the habitats are in woods; and the soil in woods is often made very loose and porous by the decay of vegetable matter, the boring of worms attracted by the dead leaves, and the digging of moles in pursuit of worms. I beg, however, to add, that the tendency of my own remark on the subject, was to show that the plant did not shun water. My own opportunities had led me to agree with the descriptions of watery localities in many local Floras, and with the ideas suggested by the specific names given to the plant. But I may freely confess now, that the reports of various botanists in 'The Phytologist,' have fully satisfied me about the plant growing

away from water, more frequently and more flourishingly than I had previously supposed to be the case. — *Hewett C. Watson; Thames Ditton, November* 5, 1843.

404. ***Reply to Mr. Gibson on Carex distans.*** Mr. Gibson's enquiry (Phytol. 777), specially addressed to me, proves (what I was previously unwilling to believe) that he is not aware that the specific characters of Carex distans, and of the two allied species, as given in the 4th and 5th editions of the 'British Flora,' have been drawn up by Dr. Boott, and not by Sir W. J. Hooker. To Dr. Boott, as to the "fountain-head" for information on this particular subject, Mr. Gibson should apply; no other person can pretend to give an infallible decision on this point. There is no method yet discovered of knowing the ideas of others, but through the medium of language; and Mr. Gibson may have learned by experience how easily an inadvertent expression may be turned against the writer to his discredit, either with or without a note of interrogation, by one addicted to such *pursuits of literature.* Mr. G. may see no occasion for the characters of C. binervis and C. distans being remodelled, *because* I have always found myself "at fault in making out the difference between them;" —(if that is not his reason for mentioning this interesting discovery, why does he make it a matter of such importance here?) Admitting, for the sake of argument, that my doubts were about something more than the *value of these differences,* as a foundation for specific characters, does it follow that I must still labour in the dark, and have no help from such able and enlightened men as Dr. Boott? I agree with Mr. G. that a perfect specific character ought not to be remodelled, and that every change must be for the worse; but he evidently confounds the idea of a description with that of a specific character. A description may be perfect, while the specific character extracted from it may be ill-constructed. The legitimate object of a specific character is, as I take it, to express, as clearly and as briefly as possible, wherein one plant &c. differs from all other *known* plants of the same family. For it is impossible to construct the specific character of each, so that it shall answer this end with regard to unknown species; and continual changes and remodellings are, in the very nature of things, indispensable, until a Flora is complete. The sanction for altering the specific characters of Carex binervis and C. distans, consists in the recent admission of a third species—C. punctata—previously unknown as British, with which each of the two had to be contrasted. It is evident that Sir W. J. Hooker did not think so highly of his own specific characters, or he would not have changed them

for others. But it seems that even the *description* of C. distans is not so perfect as that Mr. G. cannot remodel and improve it. — *W. Wilson; Warrington, November* 6, 1843.

405. *Note on Mr. Gibson's Carex pseudo-paradoxa.* I observed with some surprise in your last number, a paragraph by Mr. Gibson, headed "Note on a new British Carex," (Phytol. 778); and considering myself in some degree obligated to maintain the correctness of the Flora of this neighbourhood, I feel that I ought to afford to the readers of your valuable journal, what little information I possess as relating to this supposed "new species," in order that they may be put in possession of the opinions and facts in connexion with it here. At the present moment I will not stop to describe the exact topographical situation of this interesting plant, "as that is a secret;" but proceed to explain the nature of the circumstances under which the plant grows. All or most of your readers are doubtless aware that Carex teretiuscula has always been described as having an isolated and detached mode of growth; being, in this respect, strikingly contrasted with C. paniculata, which, until recently, was its only known British ally. In this, the roots form larger or smaller dense and elevated *cæspites*, or, as they are sometimes emphatically named, "stool-tufts." This feature has been in general use of late as an excellent means of diagnosis between the two plants when seen growing, and I may mention that I have had an opportunity of contrasting them on the same spot of ground, and so far as my observations extend, this difference in the formation of the roots is permanent. In the situation where Mr. Gibson's "Carex pseudo-paradoxa" is found, the plant has not the opportunity of displaying its characteristic property of isolation, and is compelled to increase by a regular approximation and aggregation of its roots: the place is a swamp, of a very small extent, situated in a rather deep hollow, the site of an old marl-pit, which originally was entirely filled with water. It is bounded on three sides by sloping banks covered with various shrubs, and on the other by the remains of the pit or pond; thus confined, the plant has assumed a singular and unusual habit: the roots are so closely interwoven with each other, as almost entirely to prevent the existence of any other plant, the herbage being constituted of the foliage of this plant, so as to appear like one immense and unbroken root; as we approach the water, however, it begins to separate itself into masses of various sizes, and is more isolated, and in this manner assumes a pseudo-cæspitose appearance: this circumstance, in connexion with its elongate and slender stems, and its more racemose mode of inflo-

rescence, led me, and the friend who was with me, to suspect that it might *possibly* be something new to us, and if so, probably Carex paradoxa, *Schkuhr.* I therefore instituted a very careful examination into all its characters, being solely desirous to learn the *truth* respecting it, whatever that might be; and after spending a considerable amount of time and patience in the enquiry, and carefully considering all the facts, particularly in reference to its *fruit,* which hardly, if at all, differs from that of Carex teretiuscula in its ordinary state, I was obliged, though very unwillingly, to conclude that it was nothing but a form of that plant, putting on a different aspect and habit from the adventitious circumstances under whose influence it happened to grow. Schkuhr's admirable figure of C. paradoxa, combined with his description, conclusively determined that it was not that plant; feeling however very diffident of my own ability to form a correct and positive opinion, and wishing to avoid even the appearance of error or hastiness of conclusion, I procured a considerable supply of recent specimens, and took them with me to my valued friend Mr. Wilson. We again jointly renewed the examination, which was conducted with all the care and ability we could bestow, both of us being anxious to add another species to our Flora, if we could do so consistently; but after all our pains, the facts were too clear, and the evidence too conclusive, to allow us to consider it as anything else than a modified form of C. teretiuscula. With this decision I feel quite satisfied, and I have no doubt Mr. Wilson will bear me out in the statements I have made. I may here also mention that the plant was submitted to Dr. Boott, the prince of our caricologists, and the *fountain-head* from whence *alone* indisputable opinions on this genus are to be expected, and I am proud to add the weight of his great authority in confirmation of our opinion. How Mr. Gibson could possibly assert, with anything like an appearance of truth, that the plant was "a *form* of *C. teretiuscula* with the *fruit* of *C. paniculata,*" I am utterly at a loss to conceive; the thing itself is an absurdity. If the plant *has* the fruit of Carex paniculata, I opine that all will agree, save Mr. Gibson, that it must be *that plant,* or some state of it, and cannot by possibility be either C. teretiuscula, or what Mr. G. pleases to name "C. pseudo-paradoxa." An apple-tree does not *generally* produce pears, nor, for the same reason, does one species of Carex often assume the fruit characteristic of an entirely different one: the result of your correspondent's observations, however, on this natural law, appear to be at variance with those universally adopted by others. But as Mr. Gibson seems desirous, when anxious to strengthen and confirm his own opinions, to have the able assistance of yourself, I feel that I cannot do better than submit the merits of this question to your decision. For this purpose I have sent perfect specimens of Carex paniculata and C. teretiuscula, as well as of C. pseudo-paradoxa (*Gibson*), and I shall be greatly indebted to you, and so, I have no doubt, your readers will also, if you will give them your most careful attention, and favour us with the results in the next number of 'The Phytologist.' You will perhaps have the goodness, especially to record on that occasion, the degree of similarity which you may observe between the fruit of C. paniculata and the "new species," as the decision of this point is a matter of some importance. I must not forget to notice the rather invidious assertion of your correspondent as to the secrecy which he says is maintained respecting the habitat of this very pseudo-paradoxical plant. No such thing as secrecy has been shown at all;—there was nothing to keep secret, and Mr. Gibson was never refused to have the place made known to him, the individual to whom he applied for that purpose merely declining to accompany him there, because he could not leave his business on a market-day, without great loss and inconvenience: to no one else did Mr. G. apply. — *J. B. Wood; Broughton, November* 6, 1843.

[After the decision arrived at by the eminent botanists above cited, it seems to be a work of supererogation for us to say a word on the subject; at least we cannot suppose that our opinion will add much weight to either side of the question: but since Dr. Wood has done us the honour thus publicly to appeal to our decision, it would savour somewhat of affectation were we to withhold the result of a very careful examination and comparison of the beautiful specimens forwarded by him, as well as of others previously received. Premising then that as we have never seen the plant named Carex paradoxa, and know nothing of it except from the short description in Mr. Babington's 'Manual,' and Schkuhr's figure, we are quite unable to say from actual comparison of specimens how far the disputed Manchester plant agrees or disagrees with that species. We must also state that as we have not enjoyed the opportunity of observing the disputed Carex in a growing state, our remarks must of necessity be confined to the dried specimens now before us. The first thing which struck us in the Manchester plant, as indicating a difference between it and the usual state of Carex teretiuscula, was the more elongated spike — *panicle* we cannot call it — of the former. This occurred some months ago, and since that time we have had an opportunity of seeing a tolerably extensive series of specimens, including those now sent by Dr. Wood, which show that the plant usually known as C. teretiuscula, is by no means constant in this respect, and that a regular gradation may be traced from the most dense spike of the one plant to the most elongated form of the other, but we have hitherto met with no approach to the mode of inflorescence of C. paniculata. A comparison of the roots, stem and herbage, equally fails to indicate any identity in the disputed plant with C. paniculata, while it goes far to establish a very close connexion with C. teretiuscula. Since then this plant has undoubtedly "the form of C. teretiuscula," let us see how far the possession of "the fruit of paniculata" will hold good. We have now before us, under the microscope, the fruit of the disputed plant, of C. teretiuscula and of C. paniculata, all in a mature and perfect state. No one who has examined and compared them will deny that there is a striking difference between the fruit of C. paniculata and that of C. teretiuscula. The former has a rather deeply cloven beak, laterally margined with a thickly fringed whitish membrane and furnished with a small wing on its convex side; the ribs are also tolerably prominent, and most of them extend from the base of the perigynium far into the beak: on the other hand, the fruit of C. teretiuscula has a scarcely cloven beak, with rather narrow, green, and sparingly serrated lateral membranes, and a prominent dorsal wing: the ribs are much more obscure than in C. paniculata, and several of them cease a short distance above the base of the perigynium, which appears more regular in its outline in the latter plant than in C. teretiuscula, and its deeply cloven beak is very striking. In these particulars the fruit of the disputed plant bears a close correspondence with that of C. teretiuscula, and consequently differs as widely from that of C. paniculata. In the nut, bracts and glumes we observe nearly the same degree of resemblance between the two plants, and an equal degree of discrepancy between them and C. paniculata. Taking therefore all these circumstances into consideration, whatever may have been our former opinion, which was founded on the examination of an insufficient number of specimens, we are bound to state that we can now come to no other conclusion than that the disputed plant is neither C. paradoxa, nor a form of C. paniculata, but C. teretiuscula, somewhat modified and changed in habit by the circumstances under which it occurs.—*Ed.*]

406. *Note on Statice rarifiora.* The plant alluded to in my previous notes (Phytol. 429 and 492), and a specimen of which, presented to the Botanical Society of London, was figured in your pages (Id. 561), having at length been determined, I beg to offer an observation or two on it. At the time when the above-mentioned notices appeared, I was unable to give any further information respecting it, not having met with it until past flowering; and not *then* suspecting it to be a new species, I neglected to secure more specimens than those which I subsequently transmitted to the Botanical Society. This year, however, I have diligently examined the whole of the neighbouring salt-marshes, and am now able to state that the plant in question occurs in profusion in the neighbourhood of this town. I have sent specimens of it to many botanical friends, and in particular to Messrs. Babington and Watson. These gentlemen have kindly favoured me with their opinions on it, and both agree in referring it to Drejer's Statice rariflora. They consider it as identical with the Scottish plant. The chief distinguishing characteristics, as I have observed it in this neighbourhood, are as follows: — Scape 8 to 24 inches high, erect, *much* branched, generally below the middle; branches spreading: flowers distant, *pale* blue; petals *emarginate:* calyx *very hairy,* with a long tube, and five acute, somewhat lacerate teeth, also

very frequently with intermediate teeth: leaves ovato-spathulate when full grown, lanceolate when young. Perennial: flowering in August and September, about a fortnight later than S. Limonium. It grows in large tufts, as many as twelve or even more flowering stems frequently rising from a single plant. S. Limonium is common in company with it, but I have not seen any specimens which could truly be said to present intermediate grades. Whether small, or in the greatest luxuriance, S. rariflora preserves most completely its *prima facie* distinction — the inflorescence. In no instance have I seen the flowers at all crowded towards the ends of the branches, as they always are, even in the fewest-flowered specimens of S. Limonium. Having a few specimens still left, I shall feel pleasure in supplying any of your correspondents who may wish for one, as far as my duplicates will go.—*W. L. Notcutt; Fareham, November* 7, 1843.

407. *On the plurality of Buds in the axilla of a single leaf.* Not having particularly examined the instanees pointed out by Mr. Watson (Phytol. 776), I am not prepared to say whether they are completely in accordance with that which I have observed in the locust-tree. None of the Fuchsias, which I have now the opportunity of inspecting, exhibit the character which he mentions; and the buds of the vine are essentially different from those of the locust-tree, of which I enclose a specimen, showing two young contiguous branches of the present year, gathered in June last, along with several other similar proofs. In that which accompanies this note, it will be seen that the lower shoot is the most vigorous; but this circumstance is comparatively rare. If the two buds of the vine develope into branches in the same season, there is no mutual interference; but in the case of the locust-tree, it is quite otherwise, and if both were to continue to grow for a few years, they would be incorporated together. The succession bud of Fuchsia may be nothing more than an axillary shoot from the base of the axillary flowering branch; or if otherwise, may not be visible (that is, not in existence as a bud) at the time when the bud of the flowering branch first becomes apparent. Lateral buds are not confined to the axillæ of leaves, and there may be successive formation as well as successive development of axillary buds: but whenever this takes place, it may be expected to occur above rather than below the first-formed bud; quite the reverse of what happens in the locust-tree, where the second and third buds below the first or principal bud, are in a condition to replace immediately the one which is first developed, in the event of its failure.—*W. Wilson: Warrington, November* 8, 1843.

408. *Note on Villarsia nymphæoides.* Having seen in 'The Phytologist,' several stations for Villarsia nymphæoides in Middlesex (Phytol. 747), I beg to mention one in Surrey. I have seen it growing plentifully near Isleworth ferry, in the ditch between the park and the Thames.—*Alexander Williamson : Kew, November* 8, 1843.

409. *Note on Impatiens fulva.* In addition to the several stations mentioned for Impatiens fulva (Phytol. 63), I may name three others, where I have seen it growing this season. The first is near Barnes, in a marsh between the road and the Thames, but it is not plentiful. The second is near Isleworth, on the right hand side of the road to Twickenham, in a ditch that runs across the field, where it is abundant. The third is near Hounslow, where it grows about the sides of some ponds near the mills.—*Id.*

410. *Note on Fritillaria Meleagris.* It may be interesting to some of your readers, especially Mr. Edwards (Phytol. 580), to know that this pretty plant and early ornament of our meadows, produced its drooping flowers in abundance last April, in the locality mentioned by Mr. E., half way between Mortlake and Kew bridge; but I am sorry to say that too many of the *radical* botanists visited this station during the time it was in flower; such hands prove more destructive than the Mortlake children, even supposing they do pull off the flowers to ornament their May-garlands. — *J. Ross: B. G. Kew, November* 9, 1843.

411. *Note on Aspidium spinulosum.* I am sorry to differ from Mr. Bree in respect to his observations on Aspidium spinulosum (Phytol. 773), more particularly his remark "that the application of the specific name of spinulosum to a British fern (first adopted, I believe, by Smith and Sowerby in 'English Botany') originated in error." The error will, I think, rest with the continental botanists, beginning with Willdenow, who applied this name to a plant differing from the species so named by Muller in 'Flora Danica.' This author first introduced our plant in his 'Flora Fridichsdalina,' published in 1767, as a variety of Polypodium Filix-femina: becoming editor of the 'Flora Danica,' he figured it in that work, No. 707, under the name of Polypodium spinulosum. Withering was the first English author who noticed it: my excellent friend, the late James Dickson, referred to by Mr. Bree, was, I believe, acquainted with the plant, but has nowhere published it. Withering was followed by Hull and Symons; Smith, changing the generic name to Aspidium, described it in 1804, in his 'Flora Britannica' (vol. iii.), well observing, — "*Distincta species a Cl. Witheringio benè elucidata.*" By this it will appear

evident that Smith and Sowerby did not *first* adopt it in 'English Botany,' but that in 1805 they figured a fern sent them by Mackay, of which he has stated, in 'Flora Hibernica,' that after cultivation it assumed the character of A. dilatatum. Had it not come from a cavern where A. spinulosum was not likely to grow, I should have thought it might be an indifferent figure of a bad specimen of that species, the pinnulæ being equal; as Mr. Mackay unites the two plants, it is not easy to ascertain what character of A. dilatatum he means to say it assumed. It is evident the A. spinulosum of Willdenow is a different species, and I wish Mr. Bree's supposition that it is his A. recurvum, may prove correct. I gathered this plant in Cornwall, I think in 1791, certainly not later than 1802, for I have not been in that county since.—*Edward Forster; Woodford, November* 9, 1843.

412. *Note on Sonchus oleraceus and S. asper.* Mr. G. S. Gibson has kindly pointed out to me an error concerning these plants in my 'Manual,' which is of so much consequence that I hasten to publish it. It is *Sonchus oleraceus* that has the *fruit transversely rugose combined with arrow-shaped auricles to the leaves.* In *S. asper* the *fruit* is longitudinally ribbed but *smooth*, not transversely rugose. Allow me to express a hope that if other errors are obseved by those who may make use of my book, they will favour me by communicating them.— *Charles C. Babington: St. John's College, Cambridge, November* 3, 1843.

413. *Note on Cynosurus echinatus.* In reference to Mr. Edmonston's note on Cynosurus echinatus (Phytol. 772), I beg to say that I found only three roots of that plant in the Vale of the Calder. I met with them about half a mile from Sowerby bridge; two of them were beautifully in flower, these I took up to make specimens of; the other was in a young state, this I took up also, and have it now living: one of the others I have given away. A single plant of Cynosurus echinatus has been found this season at Ash-grove, about four miles from the place where I found those alluded to above. I have a specimen of this grass from the south of England, and another from the continent; these two specimens are identical, and both have a very dense ovate spike, which is covered with a very fine white silvery substance. The Ash-grove plant (which is now in my possession) is far more robust than the specimen from the south of England, its spike being two and a half inches long and about one and a quarter in breadth, and is somewhat interrupted in its lower part: it also differs in having only about half the number of glumes on its outer spikelets, and

in the absence of the silvery substance which is so conspicuous in the other two. By this it would appear that we have two distinct plants under this name; but on turning to my Sowerby-bridge specimen, I find it to correspond with the Ash-grove plant in its long and somewhat interrupted spike, and with my south of England specimen in having the silvery-looking substance, but in a less degree. Since I find such different forms in the few specimens which I possess, I shall risk no opinion as to their specific identity, but if Mr. Edmonston would wish to see any of (or all) the specimens I have alluded to, I shall take pleasure in giving him the loan of them for a short time. In addition to the above I might say that on looking over the grasses in the collection of Samuel Hailstone, Esq., I observe some south of England specimens of Cynosurus echinatus, which are identical with my own from that part.—*Samuel Gibson: Hebden Bridge, Nov.* 11, 1843.

414. *Note on Poa maritima.* Whilst on the subject of grasses I would just say that if any of your correspondents could furnish me with a specimen of the Poa maritima which has "the branches of the panicle smooth," as stated Phytol. 294, they would bestow a favour on me.—*Id.*

ART. CLXXXIII.—*Proceedings of Societies.*

BOTANICAL SOCIETY OF LONDON.

November 3rd, 1843.—Hewett Cottrell Watson, Esq., F.L.S., V.P., in the chair. Donations of British Plants were announced from Mr. G. S. Gibson, Mr. W. L. Notcutt, and Mr. A. Henfrey. The following papers were read:—"On the Botany of Litchfield," by the Rev. R. Garnett. "Notes on a species of Cuscuta found at Duxford, Cambridgeshire," by Mr. Frederick Bond.

The Chairman presented a series of specimens of the common birch, in order to show that the forms described by different authors, under the names of Betula alba, pendula, glutinosa and pubescens, are only varieties of one single species—the original Betula alba of Linnæus. Mr. Watson stated that he had repeatedly found upon different branches of the same tree, the various forms of leaf and other characters which were given as the distinctions between these supposed species; and that the leaves of Betula glutinosa or pubescens were produced usually (if not always) on the seedling plants of Betula alba or pendula.

Specimens of Primula elatior from the Bardfield station were presented by Mr. E. Doubleday. These specimens were remarkable for the wide variation in the relative length of the calyx and corolla, and also in the form of the leaves; some specimens resembling the primrose in their tapering leaves, while others had the abruptly contracted leaves similar to those of the cowslip.

Specimens of Barkhausia setosa were exhibited, one of which was presented by Mr. Cumming in 1841, collected by him at Audley End, Essex, the other was presented by Mr. G. S. Gibson, and collected by him in a field near Sampford, Essex, in 1843. *G. E. D.*